

Applicant: Willig *et al.*  
For: PHOTONIC CRYSTAL INTERFEROMETRIC FIBER OPTICAL  
GYROSCOPE SYSTEM

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ABSTRACT OF DISCLOSURE

A photonic crystal interferometric optical gyroscope system including a light source for providing a primary beam of light, a photonic crystal sensing coil having a rotational axis, and a beam controlling device configured to split the primary beam into first and second counter-propagating beams in the photonic crystal sensing coil and 10 configured to direct return of the counter-propagating beams wherein the power of the returning counter-propagating beams represents the phase shift between the counter-propagating beams and is indicative of the rate of rotation of the coil about the rotational axis.